

## **Radiation Protection Competency 2.5**

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**Competency 2.5** Radiation protection personnel shall demonstrate a familiarity level knowledge of the following Federal regulations, codes, standards, and DOE Orders related to emergency planning and preparedness as they pertain to radiological incidents:

- 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response
- DOE Order 5500.1B, Emergency Management Systems
- DOE Order 5500.2B, Emergency Categories, Classes, and Notification and Reporting Requirements
- DOE Order 5500.3A, Planning and Preparedness for Operational Emergencies
- DOE Order 5500.4A, Public Affairs Policy and Planning Requirements for Emergencies
- DOE Order 5500.5A, Public Affairs Policy & Planning Requirements for a Fuel Supply Disruption Emergency
- DOE Order 5500.6B, Shutdown of Departmental Operations Upon Failure by Congress to Enact Appropriations
- DOE Order 5500.7B, Emergency Operating Records Protection Program
- DOE Order 5500.8A, Energy Emergency Planning and Management
- DOE Order 5500.9A, Emergency Planning, Preparedness, and Response to Continuity of Government Emergencies
- DOE Order 5500.10, Emergency Readiness Assurance Program
- DOE Order 5530.3, Radiological Assistance Program
- DOE Order 5530.5, Federal Radiological Monitoring and Assessment Center

### **1. Supporting Knowledge and Skills**

- a. Describe the relevant requirements, purpose, interrelationships and importance of the listed Orders and regulations.
- b. Discuss the role of radiation protection personnel with respect to these Orders.

## Radiation Protection Competency 2.5

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### 2. Self-Study Activities (corresponding to the intent of the above competency)

Below are two web sites containing many of the references you may need.

Web Sites		
Organization	Site Location	Notes
Department of Energy	<a href="http://wastenot.inel.gov/cted/stdguido.html">http://wastenot.inel.gov/cted/stdguido.html</a>	DOE Standards, Guides, and Orders
U.S. House of Representatives	<a href="http://law.house.gov/cfr.htm">http://law.house.gov/cfr.htm</a>	Searchable Code of Federal Regulations

**Scan** the following:

- 29 *Code of Federal Regulations* (CFR) 1910.120, "Hazardous Waste Operations and Emergency Response"
- DOE Order 5500.1B, *Emergency Management System*
- DOE Order 5500.2B, *Emergency Categories, Classes, and Notification and Reporting Requirements*
- DOE Order 5500.3A, *Planning and Preparedness for Operational Emergencies*
- DOE Order 5500.4A, *Public Affairs Policy and Planning Requirements for Emergencies*
- DOE Order 5500.5A, *Public Affairs Policy & Planning Requirements for a Fuel Supply Disruption Emergency*
- DOE Order 5500.6B, *Shutdown of Departmental Operations Upon Failure by Congress to Enact Appropriations*
- DOE Order 5500.7B, *Emergency Operating Records Protection Program*
- DOE Order 5500.8A, *Energy Emergency Planning and Management*
- DOE Order 5500.9A, *Emergency Planning, Preparedness, and Response to Continuity of Government Emergencies*
- DOE Order 5500.10, *Emergency Readiness Assurance Program*
- DOE Order 5530.3, *Radiological Assistance Program*
- DOE Order 5530.5, *Federal Radiological Monitoring and Assessment Center*

EXERCISE 2.5-A    Using 29 CFR 1910.120, list the five levels of emergency responders.

EXERCISE 2.5-B    Identify the DOE Order that assigns responsibilities and authorities for the Department's Emergency Management System (EMS).

## **Radiation Protection Competency 2.5**

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- EXERCISE 2.5-C Using DOE Order 5500.3A, describe the organization and function of the emergency management team (EMT) at the Headquarters level.
- EXERCISE 2.5-D Using DOE Order 5500.3A, define the term “operational emergency.”
- EXERCISE 2.5-E Using DOE Order 5500.10, describe the policy of the Emergency Response Assurance Plan (ERAP).
- EXERCISE 2.5-F What emergency operations center (EOC) official assumes command of a specific EOC and is so authorized to direct the EMT assigned to that EOC.
- EXERCISE 2.5-G Using DOE Order 5500.2B, determine where requests for radiological assistance are normally directed.

### **3. Summary**

A familiarity with the DOE Orders establishing the emergency response organization is necessary for the radiation protection professional, because he or she may be called upon to participate in emergency preparedness and response. Participation could vary from an advisory capacity to that of a full member of the emergency response team.

### **4. Exercise Solutions**

EXERCISE 2.5-A List the five levels of emergency responders.

- ANSWER 2.5-A
1. First responder awareness level
  2. First responder operations level
  3. Hazardous Materials Technician
  4. Hazardous Materials Specialist
  5. On-Scene Incident Commander

EXERCISE 2.5-B Identify the DOE Order that assigns responsibilities and authorities for the Department's EMS.

ANSWER 2.5-B DOE Order 5500.1B establishes the Department's EMS.

## Radiation Protection Competency 2.5

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EXERCISE 2.5-C Describe the organization and function of the EMT at the Headquarters level.

ANSWER 2.5-C The Headquarters EMT consists of an executive team and a technical operations cadre. The executive team provides strategic direction to the response and evaluates the broad impacts of the emergency on the DOE complex.

The technical operations cadre provides oversight to the field element; coordinates with other Federal agencies; and provides information to the press, Congress, and other Federal agencies.

EXERCISE 2.5-D Define the term “operational emergency.”

ANSWER 2.5-D Operational emergencies are significant accidents, incidents, events, or natural phenomena that seriously degrade the safety or security of DOE facilities. Operational emergencies apply to DOE reactors and other DOE facilities (nuclear and nonnuclear) involved with hazardous materials; DOE-controlled nuclear weapons, components, or test devices; DOE safeguards and security events; and transportation accidents involving hazardous materials.

EXERCISE 2.5-E Using DOE Order 5500.10, describe the policy of the ERAP.

ANSWER 2.5-E It is the Department's policy to establish and maintain readiness assurance for all portions of the DOE EMS through development of the following:

ERAPs ensure that emergency plans, implementing procedures, and resources are adequate and sufficiently maintained, exercised, and evaluated.

Appraisal programs ensure that stated emergency capabilities are sufficient to implement emergency plans and that appropriate and timely improvements are made in response to needs identified through coordinated emergency planning, resource allocation, training, drills, exercises, and evaluations.

## **Radiation Protection Competency 2.5**

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EXERCISE 2.5-F    What EOC official assumes command of a specific EOC and is so authorized to direct the EMT assigned to that EOC?

ANSWER 2.5-F    The Emergency Director.

EXERCISE 2.5-G    Using DOE Order 5500.2B, determine where requests for radiological assistance are normally directed.

ANSWER 2.5-G    Requests for radiological assistance are normally directed to the HQ EOC, the primary point of contact for DOE assistance, who will then notify and refer the request to the appropriate Program Office with operational responsibility for the asset.